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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS

Appellants:	John Donohue	**REPLY BRIEF**
Serial No.	09/433,332	
Filing Date	November 3, 1999	
Group Art Unit	2665	
Examiner	Daniel J. Ryman	
Attorney Docket No.	100.115US01	
Title: DIGITAL RETURN PATH FOR HYBRID FIBER/COAX NETWORK		

Remarks

Noted
DTR
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In the Examiner's Answer, the Examiner repeated the grounds of rejection from the Final Office Action. *See,* Examiner's Answer at ¶¶1-40. The Examiner further addressed a number of comments in response to arguments in Applicant's Appeal Brief. Applicant provides the following arguments in response to the Examiner's Answer:

I. In addressing the rejection of claims 1 and 18, the Examiner asserted that Eng's "filters" (20) teach a "data interface" coupled to a data concentrator which ensures that the data entering the concentrator is valid. *Examiner's Answer*, p. 5. The Examiner further asserted that a collision is a well know type of data corruption. *Id.* Thus, since Eng uses filters (data interface) to prevent corrupted data from entering the multiplexer, the Examiner concluded that it would have been obvious to place a filter (data interface) between the frequency translator and the data concentrator to determine whether a collision occurred so as to prevent corrupted upstream digital, data from being passed to the head end. *Id.*

Applicant respectfully asserts that Eng does not teach or suggest the "data interface" element of claim 1 or claim 18. The Examiner pointed to packet filters 20 of Eng as meeting this limitation citing Col. 7, lines 3-11 of Eng. Applicant respectfully traverses this assertion and requests that the rejection be reversed. Eng at Col. 6, lines

32-41 describes the function of the packet filters 20. These filters look at incoming packets to determine whether the address of the packet is appropriate for the associated output of the multiplexer. This does not teach or suggest a data concentrator or a data interface that determine whether a collision has occurred. In fact, the filter assumes that the packet is not corrupted since it evaluates the validity of the packet based on the address stored in the packet. Thus, Eng does not teach or suggest a data interface that determines whether a collision occurred within the upstream. Therefore the rejection of claims 1 and 18 is not proper.

II. In the Examiner's Answer, the Examiner provided further arguments to support the combination of Dapper and Chan. Applicant respectfully asserts that the Examiner's combination of Dapper and Chan relies on a faulty premise. The Examiner argues that it would have been obvious to combine Dapper and Chan because it would "increase the reliability of the cable system in Dapper." *Examiner's Answer*, p. 19. The Examiner provides no support for this proposition. The Examiner also notes that Dapper already includes a mechanism for detecting collisions. *Id.* The Examiner further incorrectly notes that examples of collision detection mechanisms are provided at Col. 63, lines 7-27 of Dapper. In fact, Dapper simply provides an explanation of what can be done once a collision is detected; Dapper does not describe a mechanism for *detecting* collisions. There is no indication in the cited passage of Dapper what technique is used for actually detecting the collision. Further, there is nothing in the references cited by the Examiner that indicates that there is a problem with the way that Dapper accomplishes the collision detection. Contrary to the Examiner's position, there is nothing that indicates that the technique of Chan is better than the technique of Dapper. Therefore, one of ordinary skill in the art would not have been motivated to modify Dapper with the specific collision detection technique of Chan.

The Examiner argues that the modification of Dapper with Chan is proper because "the modifications of Dapper suggested in Chan concern only the cable system of Dapper." *Examiner's Answer*, p. 19. This is not true. The impact of the collision

detection technique used on the cable portion of Dapper extends beyond the cable plant and thus, the combination is not proper.

III. In paragraphs 12, 26 and 38 of the Examiner's Answer, the Examiner asserts that Griesing teaches transmitting a collision detection signal on a different modulated carrier as called for in claims 5, 13, and 27. Griesing does not teach or suggest transmitting a collision detection signal as called for in these claims. Specifically, the claims define the collision detection *signal* as being a signal that is transmitted *when* a collision has been detected. This is not taught or suggested in Griesing. *See, e.g.,* Griesing, Col. 4, lines 49-52, and Col. 5, lines 4-19. Further, Griesing discusses using one medium for transmitting data and a separate medium to detect collisions. By using separate mediums for data and the collision detection mechanism, Griesing avoids possible noise from one signal interfering with another signal. This does not teach or suggest using a *separate modulated carrier* for carrying a collision detection signal on the same medium used to carry the data. Rather, this teaches away from using a separate modulated carrier for a collision detection signal on the same medium since when a common medium is used, noise from one signal can interfere with the other signal. Therefore, the use of Griesing to teach or suggest the use of a separate modulated carrier for a collision detection signal is not proper and the rejection of claims 5, 13 and 27 should be reversed.

IV. In paragraphs 24, 25, and 29 of the Examiner's Answer, the Examiner asserts that Usui teaches the use of collision detection signals. *See*, Usui, Col. 3, lines 60-68. Applicant respectfully asserts that Usui monitors the incoming signal to detect collisions. Usui does not teach or suggest the generation of a collision detection signal when a collision is detected. Reversal of the rejection is respectfully requested.

V. Throughout the Examiner's Answer, the Examiner takes issue with the Applicant's arguments concerning the lack of evidence to support the motivation to combine the various references cited by the Examiner. In the Final Office Action, and again in the Examiner's Answer, the Examiner has provided specific citations to the

various references to support the contentions that the references teach one or more of the elements of the claims. Further, the Examiner has provided some citations to the references to indicate why the element from one reference would be beneficial in the other reference. Applicant's contention is that the Examiner has failed to provide evidence that supports the motivation to modify the primary reference with the teachings of the other references. It is not enough that a secondary reference teaches a benefit if there is no need for the element in the primary reference. For example, the Examiner asserts that Peyrovian teaches transmitting upstream data above the cut-off frequency and thus it is obvious to combine Peyrovian with the other references. Applicant respectfully asserts that there is no evidence to support the proposed modification because there is no indication that there is a problem with the primary reference that is solved by this element of Peyrovian. Similar arguments apply to the asserted motivation to combine the other references. Therefore, Applicant respectfully asserts that the Examiner has failed to provide a proper evidentiary basis for the combination of the references and the rejections should be reversed.

Respectfully submitted,

Date: February 17, 2004

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